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CLAIMS

We claim:

A system for treating starch based potato process water, comprising: at least one ultrafilter in series with at least one reverse osmosis membrane.

- 5 2. The system of claim 1, wherein the at least one ultrafilter is two ultrafilters in series.
 - 3. The system of claim 1, wherein the at least one reverse osmosis membrane is two membranes in series.
- The system of claim 1, the at least one ultrafilter and the at least one
 reverse osmosis membrane comprising a material made from a substantially non-compacting material.
 - 5. The system of claim 4, the at least one ultrafilter comprising an inorganic material.
 - 6. The system of claim 4, the at least one reverse osmosis membrane comprising a high temperature material.

A system for treating potato process water, comprising:

at least one ultrafilter comprising an inorganic material; and

at least one reverse osmosis membrane comprising a high-temperature material.

- 8. The system of claim 7, wherein the at least one ultrafilter is two ultrafilters 20 in series.
 - 9. The system of claim 7, wherein the at least one reverse osmosis membrane is two membranes in series.

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10. A substantially continuous method for treating potato process water, comprising:

providing a source of potato process water containing potato particulates; removing at least one suspended potato particulate; and removing at least one dissolved potato particulate.

- 11. The method of claim 10, including removing the at least one suspended particulate by ultrafiltration.
- 12. The method of claim 10, including removing the at least one dissolved particulate by reverse osmosis.
- 10 13. The method of claim 10, the method producing a permeate stream containing about 0.001 to about 0.1 wt% particulates and a concentrate stream containing about 5 to about 25 wt% particulates.
 - 14. The method of claim 13, the permeate stream containing about 0.01 wt% particulates.
- 15. The method of claim 13, the concentrate containing about 20 wt% particulates.
 - 16. The method of claim 10, further including removing potato particulates with a size larger than 20 mesh before removing the large particulates.
- 17. The method of claim 13, including recycling the concentrate stream into a20 process for making dehydrated potato flakes.
 - 1/8. A method for making dehydrated potato flakes, comprising:



providing at least one potato;

making a potato mash from the at least one potato using water or steam;

drying and flaking the potato mash;

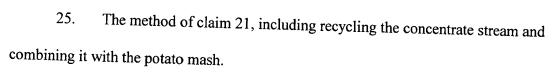
collecting the process water resulting from the method of making the potato

5 mash, the process water containing potato particulates;

removing at least one suspended potato particulate; and

removing at least one dissolved potato particulate.

- 19. The method of claim 18, including removing the at least one suspended particulate by ultrafiltration.
- 10 20. The method of claim 18, including removing the at least one dissolved particulate by reverse osmosis.
 - 21. The method of claim 18, the method producing a permeate stream containing about 0.001 to about 0.1 wt% particulates and a concentrate stream containing about 5 to about 25 wt% particulates.
- The method of claim 21, the permeate stream containing about 0.01wt% particulates.
 - 23. The method of claim 21, the concentrate containing about 20 wt% particulates.
- 24. The method of claim 21, including recycling the permeate stream into the20 method for making the potato mash.



- 26. The method of claim 18, including making the potato mash by making at least one potato piece and then ricing the at least one potato piece.
- 5 27. The method of claim 26, including recycling the concentrate stream and combining it with the at least one potato piece.

